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PATENT SPECIFICATION



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COMPLETE SPECIFICATION

A Shelf Support

I, ALBERT WEBER, trading as A. WEBER SOHN, of Wetzikon, Switzerland, a Swiss Citizen, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a shelf support.

According to the invention a shelf support includes an upright support and a bracket which is vertically stepwise adjustable thereon and has a forked end which by means of studs on it engages holes in the upright which is provided with a longitudinal, undercut slot; one shank of the said end being formed with a crosswise extending lug that prevents the said shank from being pulled out of the longitudinal slot of the upright support until the bracket has been swung upwards to free the other shank from the upright support and the bracket has been twisted a quarter turn to enable the lug to be drawn laterally out of the slot.

The bracket may thereby be assemblable on the upright support at different heights from the floor.

The bracket may be adapted to support a shelf in downwardly slanting oblique position.

To support a shelf two brackets and upright supports are used.

The shelf supports are suitable for use in the displaying of goods in show windows.

Various other features of this invention will be apparent from the specification and the accompanying drawings in which:

Figure 1 is a side-view of the shelf support comprising a shelf consisting of glass.

Figure 2 is a section according to line II—II in Figure 1.

Figure 3 is a top-view of the shelf support showing the upright supports in horizontal section.

Figure 4 shows the bracket swung into an oblique angle to the upright support to detach it from the latter.

Figure 5 shows the bracket in the position

after it has been twisted a quarter turn, when it is in position to be removed from the upright support.

Figure 6 is a side view of the shelf support with a wooden shelf.

Figure 7 is a side view of the shelf support in another oblique position of the bracket.

Referring to the drawings, the shelf support comprises an upright support 1 and at least one bracket 2, which is displaceable thereon in vertical direction. The upright support 1 is of undercut channel section. Both longitudinal edges 3 of the upright support are bent towards each other, forming thereby a slot 4. The web or back of the upright support is provided with holes 5 equally spaced from each other. The back of the upright support has screw holes for fastening it to a vertical wall by screws, one of which is indicated by the reference numeral 6 in Figure 1. The bracket 2 includes a guide portion 2a and a bracing portion 2b. The supported inner end of the bracket is forked. The forked portion engages the channel of the upright support 1. The upper shank 7 of the forked portion extends at an oblique angle upward. The shank 7 is formed at its end with a lug 7a and a stud or tenon 7b. The lower shank 8 of the forked end of the bracket has a stud 8b. The studs 7b and 8b are spaced from each other at exactly the same distances as the holes 5. The studs 7b and 8b engage simultaneously separate holes 5. The lug 7a is held by the edges 3 of the upright support 1. Upon the guide portion 2a of the bracket 2 there is a fixed collar 2c and a telescoping extension 2d. They are used to support shelf 9 which may be glass plate. The collar 2c and extension 2d are of undercut-channel type profile, with flanges having bent edges directed towards each other to embrace the guide portion 2a of the bracket 2. The telescoping portion 2d may be extended to suit the width of the shelf, and it is secured by means of a locking screw. A headed locking screw 10 is tightened by screwing it upwards by means of

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its head into the guide portion 2a until its upper end presses against the telescoping portion 2d. The telescoping portion 2d is provided with an upward extension 11 to locate the shelf 9. When the height of the shelf from the floor is to be changed the shelf 9 is removed, whereupon the bracket may be detached from the upright support. The bracket may be removed by first swinging it upwardly into the position shown in Figure 4, where the upper shank 7 lies in the horizontal position, and the lower shank 8 lies clear of the upright support, and then twisting the bracket about itself for one quarter turn in a plane parallel to the arrow a and to the supporting wall. Then the bracket may be moved away from the upright support (see arrow b) because the lug 7a is then set parallel to the slot 4 of the upright support. The bracket may then be inserted at a different height from the floor into the upright support. By twisting the bracket a quarter turn in the reverse direction, it can be then brought back into the position where the lower shank 8 is directed downward, and the lug 7a set crosswise to the direction of the slot 4 of the upright support. After this the bracket may be returned into the horizontal position ready to take the glass plate 9. Accidental dislocation of the bracket for instance by upward movement of its outer end is not possible, because the bracket is secured by means of the lug 7a against movement out of the rail holder and by means of the stud 7b against downward movement. To set the bracket quickly at the desired height the holes 5 may be numbered. Such numbering may be marked upon the upright support itself. If the shelf 9 is made of wood, the telescoping portion 2d is then provided with counter sunk holes for flat head wood screws 13. Figure 6. In this case an extension 11 as shown in Figure 1 is not necessary. Figure 7 shows a modified embodiment of a shelf support according to this invention. In this case the bracket consists of two parts 2e and 2c. The part 2e comprises the forked portion 7, 8, which engages the upright support 1. The parts 2c and 2e are journaled on the pivot pin 14, and contain the telescoping portion 2d. This part 2d embraces the guide part 2a. A locking screw 10 is used to secure the telescoping portion 2d to the guide part 2a in different positions. The pivotable part 2c is formed with a lug 15 extending downward which is provided with a set screw 16 placed to abut the part 2e of the bracket. The set screw can be adjusted to provide for any oblique position and also for the horizontal position of the bracket. To hold a shelf 9 consisting for example of a glass plate upon the obliquely positioned bracket an extension 11 is used. A rail 11a may be provided and be held between the extension 11 and the glass plate itself.

What I claim is:—

1. A shelf support including an upright support and a bracket which is vertically step-wise adjustable thereon and has a forked end which by means of studs on it engages holes in the upright support which is provided with a longitudinal undercut slot, one shank of the said end being formed with a crosswise extending lug that prevents the said shank from being pulled out of the longitudinal slot of the upright support until the bracket has been swung upwards to free the other shank from the upright support and the bracket has then been twisted a quarter turn to enable the lug to be drawn laterally out of the slot. 70

2. A shelf support according to claim 1, wherein said holes that engage said studs formed on said shanks are numbered. 80

3. A shelf support comprising an upright support, a bracket engaging the upright support and displaceable vertically in steps to change the height of the shelf, said bracket being formed with an upper shank and a lower shank at its end that engages said upright support studs on said shanks, engaging holes in the upright support, the upper of said shanks being formed with a lug which extends crosswise relative to the upright support and by engagement with an undercut longitudinal slot in the upright support, prevents withdrawal of the bracket from the upright support, the upper shank extending upwards at an oblique angle to the horizontal whereby by an upward swing of the bracket the lower of said shanks can be moved outside the longitudinal slot so as to permit twisting of the bracket for a quarter turn to turn the crosswise head into a position where it can be pulled laterally out of the undercut slot and the bracket be thereby made withdrawable from the upright support, a telescoping portion forming part of the bracket, and means for securing the telescoping portion at desired positions providing thereby support for variously dimensioned shelves. 85

4. A shelf support according to claim 3, wherein said telescoping portion of the bracket is of U-shaped profile embracing a guide piece of the bracket by means of flanges comprising edges bent towards each other, moreover that said guide piece at its outer end portion comprises a screwthread extending from its lower side, and a headed locking screw engaging said screwthread to secure said telescoping portion. 90

5. A shelf support according to claim 4, wherein the guide piece for the telescoping portion of the bracket is attached by means of a pivot pin to that portion of the bracket which engages the upright support, and wherein means are provided for positioning the guide piece in different angular positions relative to the upright support engaging portion of the bracket positions. 95

6. A shelf support according to claim 5, wherein the telescoping portion of the bracket consists of a U-shaped rail the flanges of which 100

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have edges bent towards each other, said U-shaped rail embracing a guide portion of the bracket, and the outer end of said guide portion being provided with a locking screw to secure the telescoping portion in the desired position.

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Fig. 1

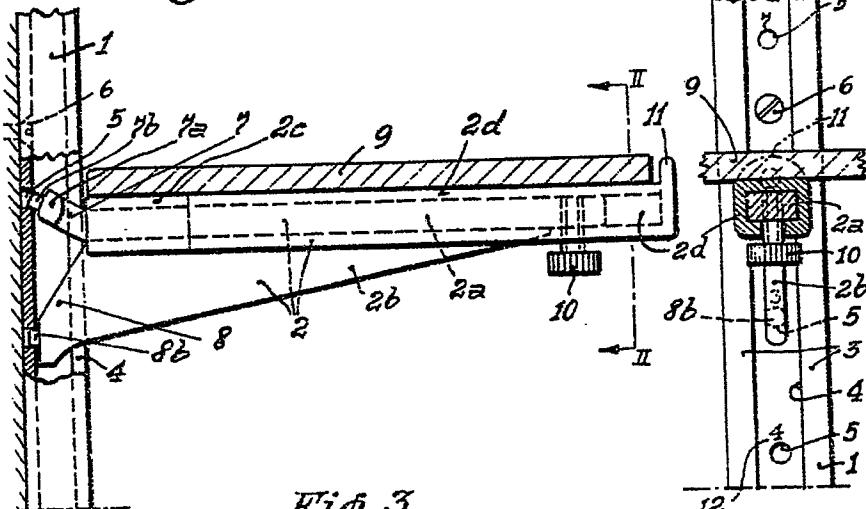


Fig. 2

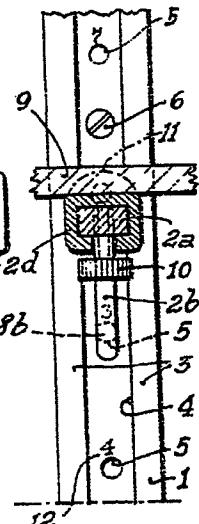


Fig. 3

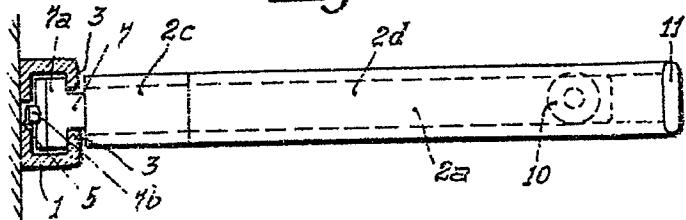


Fig. 4

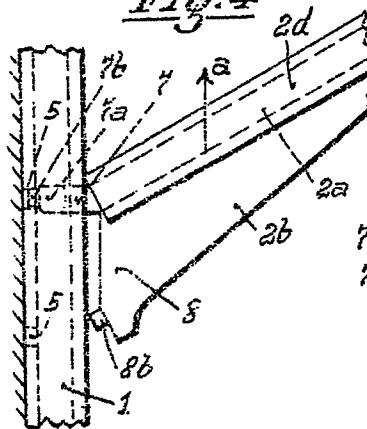
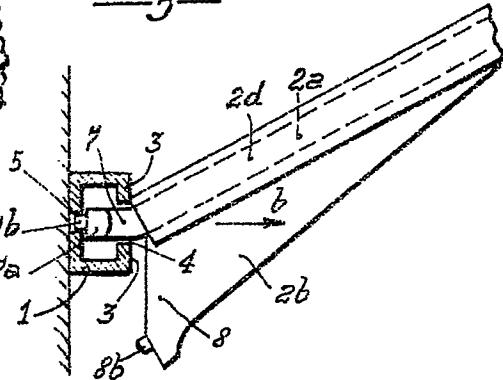


Fig. 5



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2 SHEETS This drawing is a reproduction of the Original on a reduced scale.
SHEETS 1 & 2.

SHEETS 1 & 2

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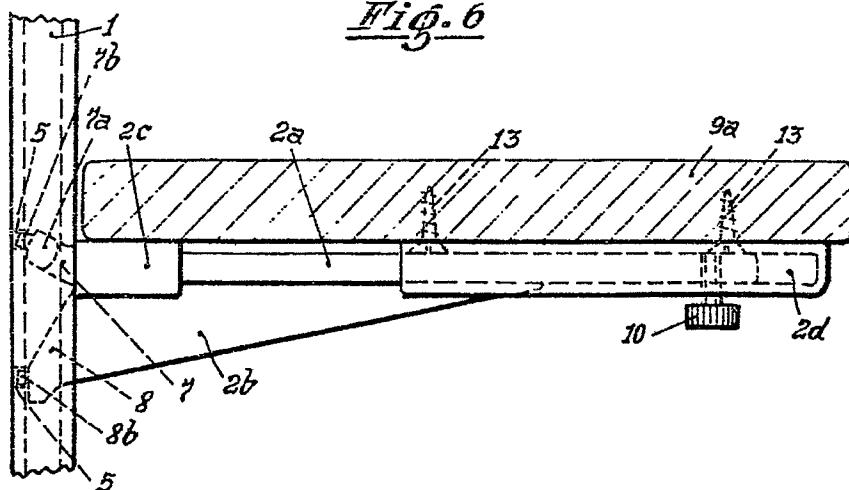
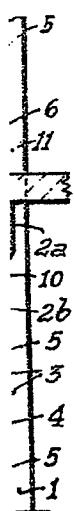


Fig. 6

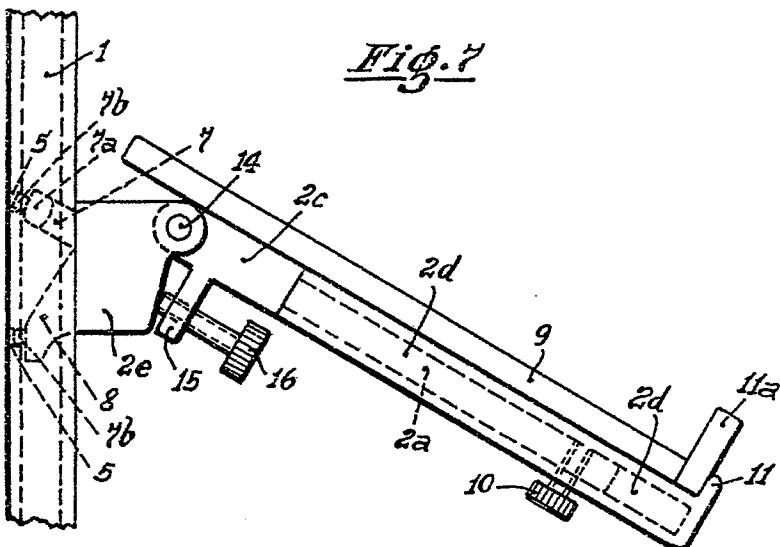


Fig. 7

